



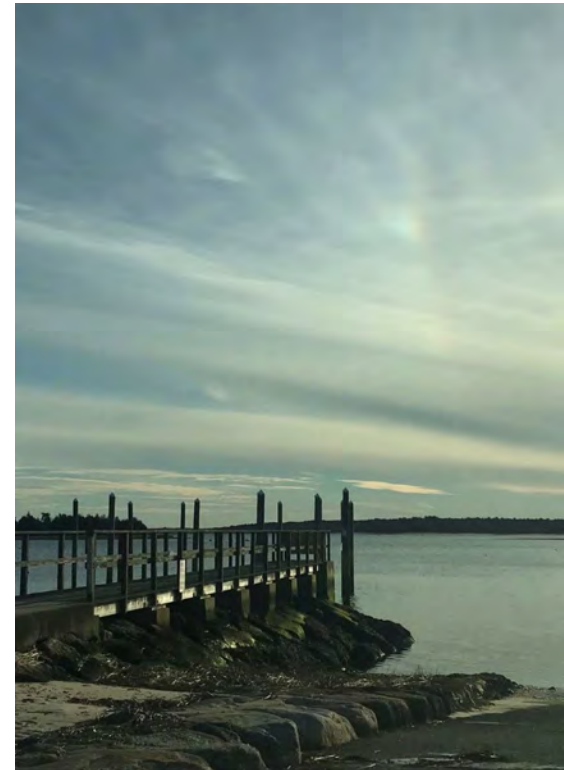
# Town of Bourne Comprehensive Wastewater Management Plan

Select Board Status Update



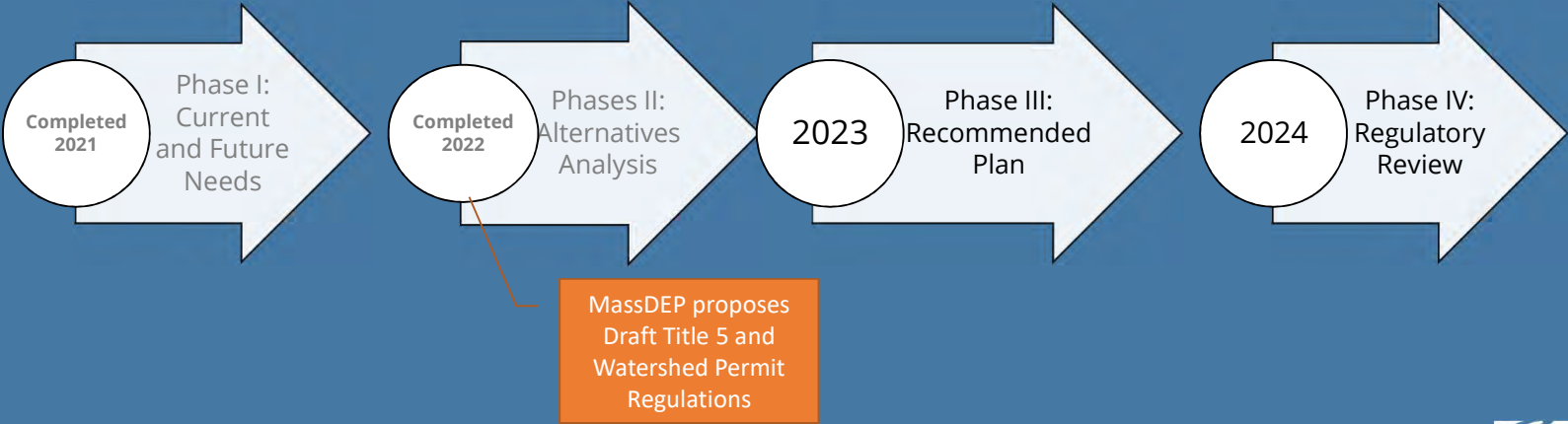
# Agenda

- Refresher on CWMP
  - Completed Phases
  - Phases Left to be Completed
- Regulatory Changes and CWMP impacts



# Refresher: What is a Comprehensive Wastewater Management Plan?

- Town-wide water quality assessment and solutions
- Aligns with 2019 Local Comprehensive Plan Goals for growth and development
- 20-year planning to meet water quality goals



# Where did we conclude our alternatives analysis?

- Remove nitrogen based on the goals set in our Needs Assessment
  - TMDLs
  - 25% Reduction across Nitrogen Impaired Watersheds
- Objectives
  - 208 Plan Compliant solutions
  - Alignment with Town Goals
- Process
  - Drafted and Reviewed Analysis with Wastewater Advisory Committee
  - Reviewed and Approved Final Report with Board of Sewer Commissioners

Watersheds	Total Nitrogen Load Values, kg-N/year		Bourne Total Removal (kg-N/yr.)
	Wastewater	Total	
Megansett-Squeteague Harbor	7,611	11,658	564
Phinneys Harbor	5,948	8,730	1,706
Buttermilk Bay	4,058	5,610	1,402
Pocasset Harbor	7,958	12,479	3,120
Pocasset River	3,762	5,157	1,289
Buzzards Bay	16,830		TBD
Cape Cod Canal	164,028		TBD
Total			8,072



# TMDL #1: Megansett-Squeteague Harbor



# Megansett-Squeteague Harbor

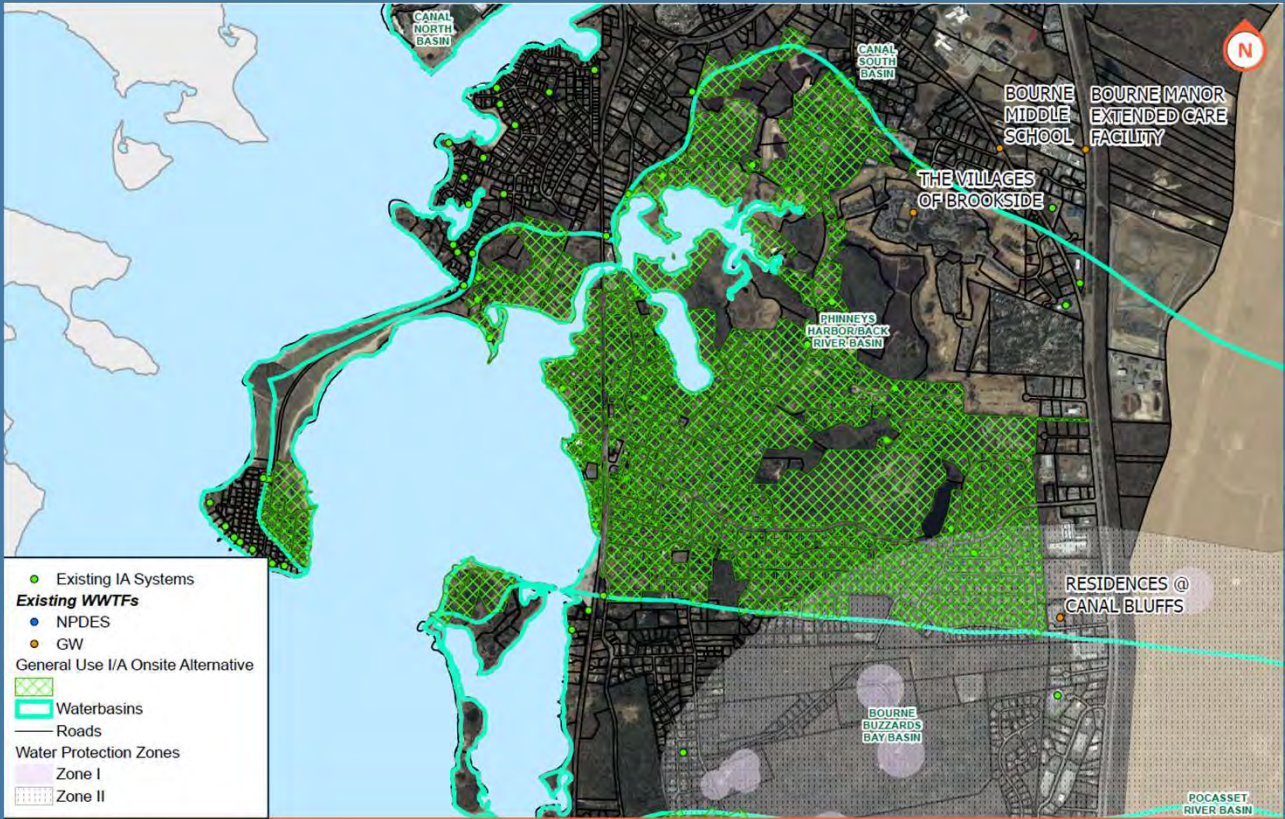
Table 6: Megansett-Squeteague Alternative Summary

Alternative	Number of Parcels	Estimated Nitrogen Reduction (kg N/y)
Residential I/A General Use Onsite System Replacement	285 - 357	504 - 631
Stormwater BMP	-	219
Total Estimated Removal		723-850
TMDL Removal Requirement		600
Removal Goal Met?		Yes





# TMDL #2: Phinney's Harbor



# Phinney's Harbor

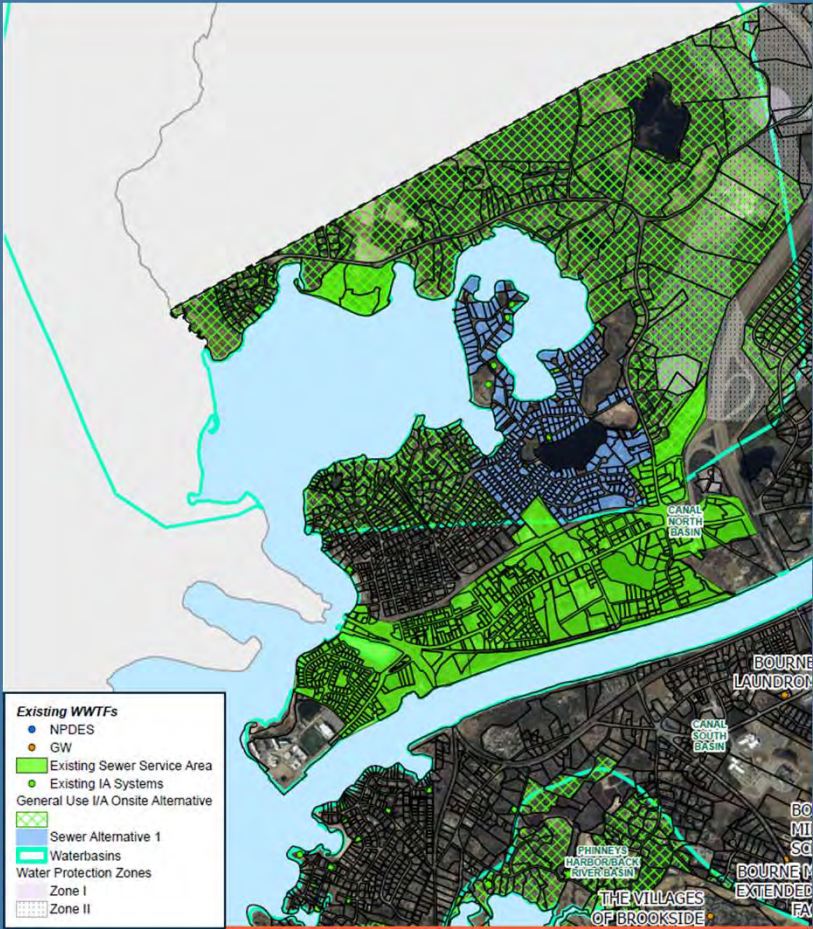
Table 9: Phinney's Harbor Alternative Summary

Alternative	Number of Parcels	Estimated Nitrogen Reduction (kg-N/y)
Residential I/A General Use Onsite System Replacement	1,133 -1,235	2,001 – 2,182
Stormwater BMP	-	383
Total		2,384 – 2,565
TMDL Removal Goal		1,706
Removal Goal Met?		Yes





# Buttermilk Bay



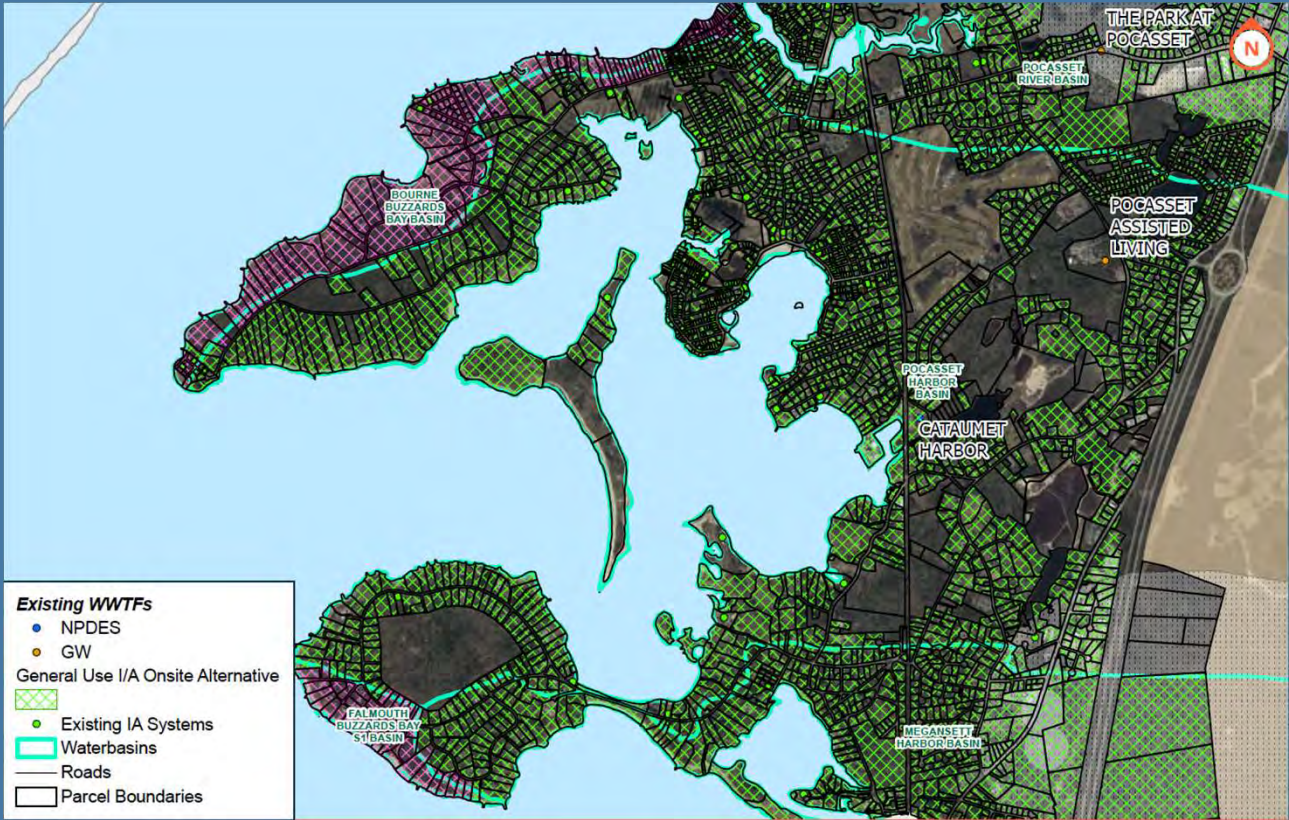
# Buttermilk Bay

Table 13: Buttermilk Bay Alternative Summary

Alternative	Number of Parcels	Estimated Nitrogen Reduction (kg-N/y)
Residential I/A General Use Onsite System Replacement	374	588
Sewer Alternative 1	330	1,160
Stormwater BMP	-	177
Total		1,925
Nitrogen Removal Goal		1,402
Removal Goal Met?		Yes



# Pocasset Harbor



# Pocasset Harbor

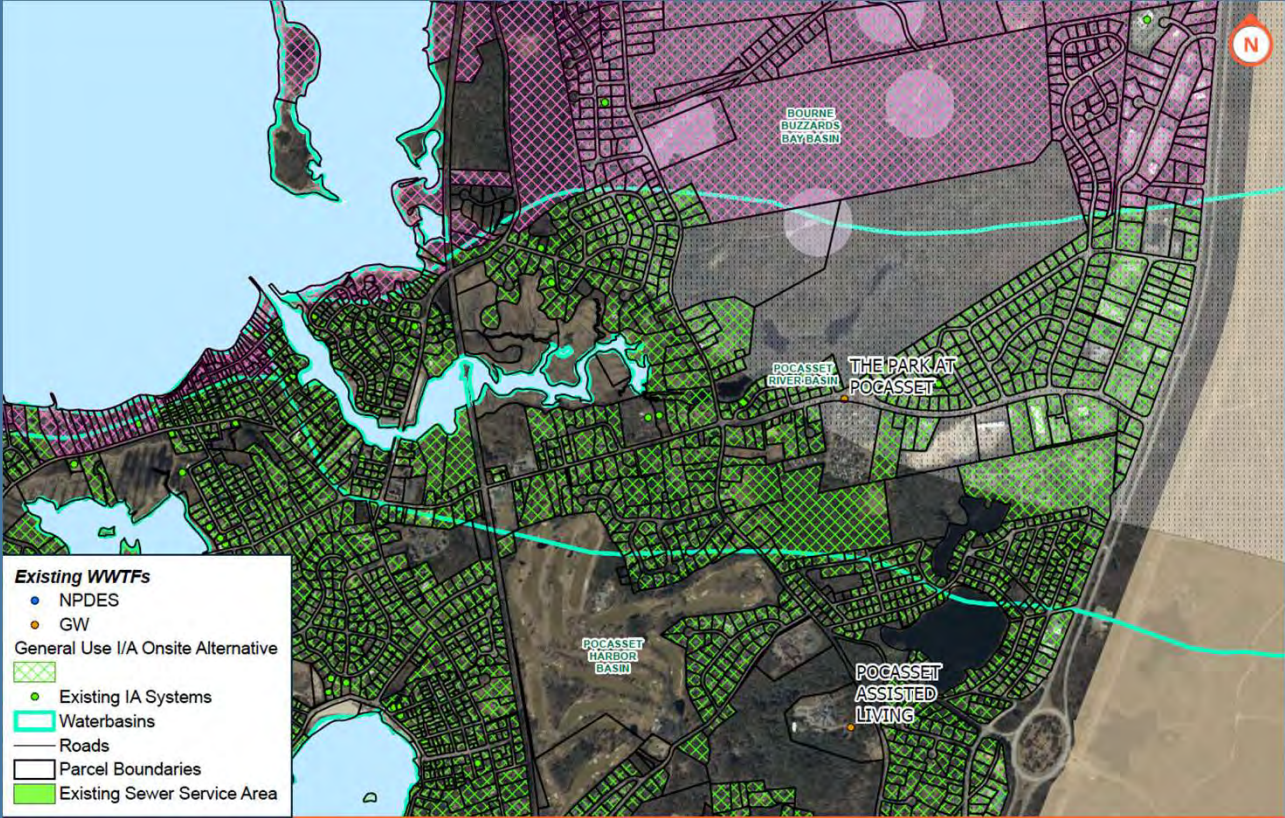
Table 16: Pocasset Harbor Alternative Summary

Alternative	Number of Parcels	Estimated Nitrogen Reduction (kg-N/y)
Residential I/A General Use Onsite System Replacement	1,450	2,562
Commercial I/A General Use Onsite System Replacement	53	262
Stormwater BMP	-	470
Total		3,292
Nitrogen Removal Goal		3,129
Removal Goal Met?		Yes





# Pocasset River



# Pocasset River

Table 19: Pocasset River Alternatives Summary

Alternative	Number of Parcels	Estimated Nitrogen Reduction (kg-N/y)
Residential I/A General Use Onsite System Replacement	650	1,148
Stormwater BMP	-	215
Total		1,363
Nitrogen Removal Goal		1,289
Removal Goal Met?		Yes





## Phase II - Alternatives Analysis Conclusions

- General Use Innovative and Alternative (I/A) Onsite Systems are the primary Conventional Control Technology proposed Town-wide
  - A Responsible Management Entity (RME) is strongly recommended to assist in deployment of this technology
- Buttermilk Bay is the only watershed with a proposed Core Sewer Area
  - Buttermilk Bay does not have a TMDL, but is a nitrogen-impaired water body

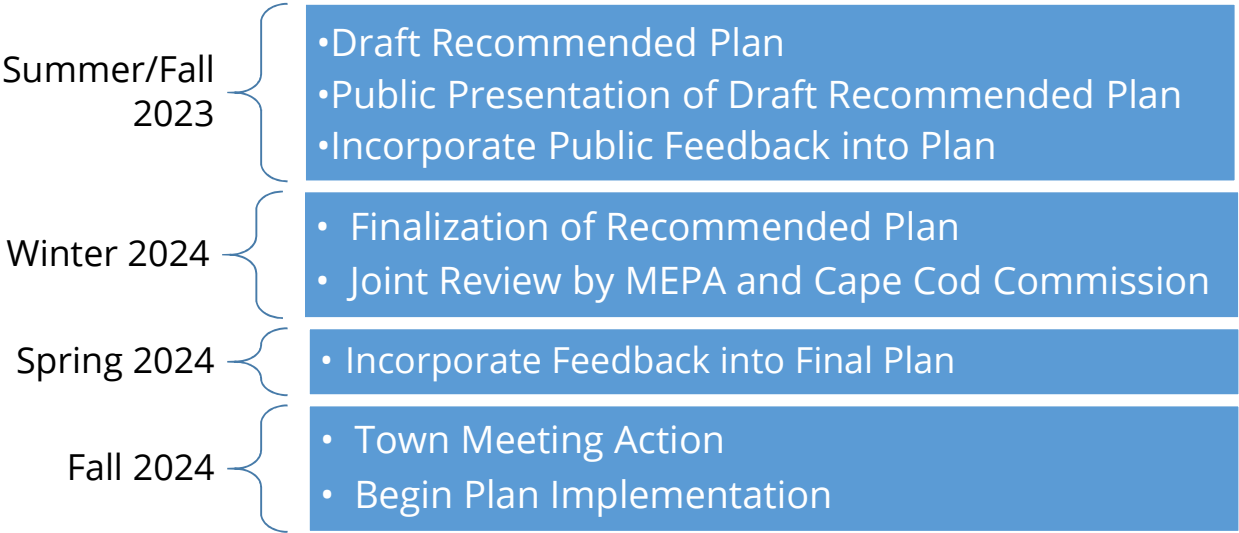


## Regulatory Changes and CWMP Impacts

- The Alternatives Analysis proposed technologies are consistent with the revised Title 5 requirements and new Watershed Permit regulations.
  - EP recommends prioritizing watersheds that are subject to the revised Title 5 Nitrogen Sensitive Areas first, then proceeding with other watersheds.
- EP recommends the Town consider the adoption of a Watershed Permit as part of their Recommended Plan as soon as possible.
  - EP recommends the Notice of Intent be filed within the next two years so it can be included in the Recommended Plan.



## Next Steps: Project Team



# THANK YOU

